Comments on

Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients
To
House Energy & Commerce Committee
And
House Energy & Commerce Committee, Health Subcommittee

By
Lancaster General Hospital

June 3, 2014

Dear Subcommittee Chairman Pitts,

On behalf of Lancaster General Hospital, I am pleased to submit the attached responses to the additional questions and member requests for the record. Thank you again for the opportunity to testify to the Committee on a very important topic for our nation.

Lancaster General Hospital looks forward to continuing to work with you, your Committee members and the Congress to address the issue of telemedicine in our healthcare system. Please do not hesitate to contact me if I can be of service.

Sincerely,

Thomas E. Beeman Ph.D., FACHE
President & Chief Executive Officer
President, Lancaster General Hospital

Attachment

c: Jo Ann Lawer, Director, Government Affairs & Grants

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1. What role can telemedicine play to facilitate new payment models?

As has been seen in many industries, such as retail and banking, the advent of new technology and a significant increase in connectivity has far-reaching impacts. So too, will advancements in connectivity for healthcare impact the delivery of care. A key element that will stunt or support growth in this sector, will be development of effective, aligned and appropriate payment models which encourage health systems, providers and patients to use telemedicine capabilities in ways which do not compromise the end goal – to provide high quality, high value care at the appropriate time and in the appropriate setting.

At Lancaster General Health, we offer different types of telemedicine options to various different populations. Key to development for each of these pilots however, has been an infusion of capital and human resources from the health system’s budget to launch each initiative. As an example, a pilot to provide telemedicine services to elderly cardiology patients at the Willow Valley Retirement Community has required video software and peripheral examination device hardware including high definition digital cameras, and a high speed secure internet connection. LGH conducted this pilot without reimbursement in order to test the model. Medicare provides only limited reimbursement for virtual visits in comparison to in-person visits. Thus, while it is a privilege to develop these innovations in our community, our system’s ability to continue to do so will require the support of aligned incentives to pursue these types of investments.

In addition to appropriately incentivizing health systems to support investments in these new technologies, aligning physician reimbursement for providing this type of care is equally, if not more important. Under traditional fee-for-service reimbursement models, direct-to-consumer telehealth has been poorly reimbursed. Twenty-two percent of surveyed organizations reported insufficient reimbursement as the greatest barrier to virtual visit implementation. Adoption of the new method of care delivery is critical to the success of any pilot and to that end, a payment model which supports these types of care delivery is necessary. The Advisory Board provides three different examples of reimbursement models which have been tested at various facilities:

1) Time-based compensation: RVU level assigned based on length of appointment and complexity
2) Differentiated payment: Separate check paid to physicians for the number of virtual visits conducted
3) Panel-based incentives: Compensation models which weight usage of web-based patient portals as a part of total percentage compensated

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Another beneficial payment reform would be in modifying reimbursement structures to allow more than one physician to bill for an appointment. Telemedicine provides an enhanced ability for multiple providers to provide needed insight to a patient and provider, supporting collaboration of care givers, increased patient convenience, shorter diagnosis times and enhanced access to specialists which, in current models, is not reimbursed.

The third major stakeholder in a telemedicine encounter is the patient. A key benefit to telemedicine is the access that it can provide patients in any setting which has the appropriate apparatus and connectivity. At Lancaster General Health, we have provided patients in our Care Connections program\(^3\) with the technology tools they need in order to have access to our web-based patient portal MyLGHealth. The care team in this practice uses voice and video to collaborate with each other when caring for patients during home visits.

In reviewing each of these stakeholders, a key opportunity for payment reform would be in the development of improved capitation models – allowing providers and health systems to take on the risk associated with caring for patients, thus encouraging those delivering care to creatively and collaboratively identify solutions which deliver high quality, high value outcomes. Models which support this type of thinking transition the delivery of healthcare from a transactional, volume based industry to a comprehensive, value based one. Elevating the care of patients by providing appropriate and effective reimbursement models will go far to help align key stakeholders to the telemedicine effort.

2. **What payment models are likely to best encourage the development of telemedicine or benefit from the use of telemedicine and how?**

At Lancaster General Health, we will reiterate our position that providing more autonomy to health systems and providers to take on the shared risk of managing patient populations would support the effective use of telemedicine. An effective transition from the fee-for-service model to fee-for-value supports innovation at the local level and would include introduction of Capitation. Capitation would provide a “per member, per month” payment which would cover the cost of care needs for each patient within the designated population. Ultimately, payment reform of this kind will reduce fragmentation of services and also improve the coordination of services as patients will be treated as a whole, rather than a sum of parts.

The Affordable Care Act created a number of value-based alternative payment models to fee-for-service reimbursement under Medicare in order to improve care coordination and reduce costs. Unfortunately, these programs, including accountable-care organizations (ACOs), medical homes, and bundled payments, have not been able to benefit from gains attributed to using

\(^3\) Care Connections is a unique clinic which focuses an interdisciplinary team of care and social service providers on those patients who are high utilizers of both health and social support services.
telehealth. Consequently, the American Telemedicine Association (ATA) made two recommendations to address this in March 2014:

- Department of Health and Human Services (HHS) and Centers for Medicare and Medicaid Services (CMS) should waive the Medicare restrictions on telehealth in section 1834(m) for ACOs and Center for Medicare and Medicaid Innovation (CMMI) payment models for bundled acute care and medical homes.
- The agencies should also waive section 1895(e)(1) for these alternative payment methods to allow home telehealth and remote monitoring for “homebound,” Medicare beneficiaries.

_Because of the role Medicare reimbursement plays on the entire health insurance industry, we strongly support the proposals which encourage Medicare reimbursement for telemedicine solutions as they will serve as a catalyst for private insurers to make similar shifts in thinking._

3. **How has the advancement of telemedicine in recent years benefited the discovery, development or delivery of healthcare?**

The American Telemedicine Association has outlined several categories of major benefits:

**Improved Access** – For over 40 years, telemedicine has been used to bring healthcare services to patients in distant locations. Not only does telemedicine improve access to patients but it also allows physicians and health facilities to expand their reach, beyond their own offices. Given the provider shortages throughout the world, in both rural and urban areas, telemedicine has a unique capacity to increase service to millions of new patients. As Lancaster General Health transitions away from fee-for-service reimbursement and towards population health management, it is essential that we test and develop expertise in new methods of care delivery that allow us to extend our provider pool and provide greater access to care that is affordable and convenient.

**Expert care**– Telehealth represents a way to steer patients to a particular clinician with the most expertise in treating that particular condition that they would not otherwise have had access to. Combined with new ‘cognitive’ listening, thinking and learning computing machines such as IBM’s “Watson,” telehealth will be able to recommend treatment options to patients in a way that combines the latest research available. This increases efficiency of specialists’ time, and provides specialists with an opportunity to expand their consulting network. Beyond a specific patient visit, telehealth can link physicians in various specialties to discuss difficult patient cases. For example, at Lancaster General Health, our medical and radiation oncologists collaborate with

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pathologists, radiologists, nurse navigators, members of the care team, and guests from the University of Pennsylvania in our monthly tumor board telehealth meetings.

**Cost Efficiencies** – Reducing or containing the cost of healthcare is one of the most important reasons for funding and adopting telehealth technologies. Telemedicine has been shown to reduce the cost of healthcare and increase efficiency through better management of chronic diseases, shared health professional staffing, reduced travel times, and fewer or shorter hospital stays. Partners HealthCare System conducted a 2007 study examining the value of provider-to-provider telehealth technologies. This study examined several specific telemedicine applications and used a rigorous approach to define both costs and financial benefits to the nationwide implementation of each application. For the use of telemedicine to join Emergency Rooms, the cost to equip all US emergency departments with hybrid telehealth technologies could easily be covered by savings from a reduction in transfers between emergency departments. From a baseline of 2.2 million patients transported each year between emergency departments at a cost of $1.39 billion in transportation costs, hybrid technologies would avoid 850,000 transports with a cost savings of $537 million a year.6

At Lancaster General Health, we will see continued cost savings by using the data gleaned from our electronic health record to better understand the health needs of our population. As we have seen through success in our Care Connections program, per member per month spending has decreased on average from $3,489 to $2,819. While this is a small subset of our patient population, we strongly believe that this is indicative of the types of savings we will continue to see as telehealth strategies continue to develop.

**Improved Quality** – Studies have consistently shown that the quality of healthcare services delivered via telemedicine, are as good as those given in traditional in-person consultations. In some specialties, particularly in mental health and ICU care, telemedicine delivers a superior product, with greater outcomes and patient satisfaction.

**Patient Demand** – Consumers want telemedicine. The greatest impact of telemedicine is on the patient, their family and their community. Using telemedicine technologies reduces travel time and related stresses for the patient. Over the past 15 years study after study has documented patient satisfaction and support for telemedicine services. Such services offer patients the access to providers that might not be available otherwise, as well as medical services without the need to travel long distances. A new survey by PwC’s Health Research Institute (HRI) found that consumers are willing to abandon traditional care venues for more affordable and convenient alternatives. “Nearly half of all respondents said they would choose new options for more than a dozen common medical procedures, such as using an at-home kit to diagnose strep throat, or having chemotherapy delivered at home.”7

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7 “Healthcare’s new entrants: Who will be the industry’s Amazon.com?” New Health Economy. Price Waterhouse Cooper’s Health Research Institute, April 2014.
4. As the capacity for telemedicine continues to grow, what regulatory bottlenecks are most likely to get in the way of its further development?

State-based licensing requirements prevent physicians from treating patients outside states in which they are licensed to practice. The VETS (Veterans E-Health and Telemedicine Support) Act, passed in early 2013, now enables VA health professionals to practice tele-mental health across states; similar pieces of federal legislations (HR 6719, HR3306) have been introduced to allow other providers to practice across states but they have not been passed.

5. Can telemedicine raise the quality of service provided to patients? If so, how?

Continuity of care is an emerging challenge for health providers that can be aided through the use of virtual technologies. Recent studies in telemedicine have shown the lowest rates for follow-up visits at 6% compared with 12% for those seen in a PCP office and 20% follow-up visits scheduled for those seen in the emergency department. Further research is required to determine whether information or management continuity improves outcomes. However, we believe the following is illustrative of the benefits both continuity and information can have on enhancing patient engagement and raising the quality of services provided to patients.

“Leon” is a patient in our Care Connections program. Care Connections is a multidisciplinary practice focused on the needs of “superutilizers”, those who use high amounts of social and health services. “Leon”, a diabetic, was a “superutilizer”. In a six month period prior to enrolling in Care Connections, “Leon” had eight emergency department (ED) visits of which four led to lengthy inpatient hospitalizations. All eight of these visits were caused by uncontrolled, elevated blood sugar. In the first few weeks at Care Connections, “Leon” was introduced to MyLGHealth, our secure online patient portal. Previously, “Leon” would receive his test results on pieces of paper, at each encounter. Following his introduction to Care Connections, his test results were aggregated on the patient portal, showing a history of his different test results. Seeing the aggregate of the results, “Leon” soon became engaged in understanding the root causes of his many visits to the ED, linking diet, medication and test results together, better understanding the disease that plagued him.

Three months after joining Care Connections, “Leon” has had no ED visits or inpatient hospitalizations. “Leon” continues to track his own glucose values, checks his own lab values, and reviews past Care Connections visit information on MyLGHealth.

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6. Can telemedicine lead to more patients receiving care without costly, unnecessary, and time-consuming trips to their doctors?

In brief, yes. Lancaster General Health cardiac and geriatric specialty providers were experiencing a backlog of patients, resulting in a delayed waiting period for appointments. Lancaster General Health identified an access need for seniors living in retirement communities that due to physical and cognitive limitations can no longer drive. Visit types were studied by physicians and telemedicine technology was evaluated to determine that low-level routine follow up visits could be seen via telemedicine to provide convenience to patients and enable providers to gain efficiencies in the amount of patients they could treat. A telemedicine cart was placed in the Willow Valley retirement community (the second largest retirement community in the United States) enabling patients to connect with their cardiac or geriatrician specialist.

Lancaster General Health is also utilizing telemedicine to improve access and reduce travel time for our own employees while at work. Previously, if an employee experienced a work related injury they either had to report to the Emergency Department or travel to our occupational medicine provider. Since the implementation of telemedicine technology connecting employees remotely to occupational medicine providers, average visit times are 28 minutes, and 31 trips to the Emergency Department have been avoided in a four month period. These telemedicine efforts represent time and cost savings to the health system and greater convenience for our employees.

In addition to Lancaster General Health’s experience, the University of Arkansas evaluated patients' cost savings in a telehealth project during 1998-2002. The study population consisted of self-selected telemedicine patients in rural Arkansas (N = 410 consults). Results suggest that without telemedicine, 94% of patients would travel greater than 70 miles for medical care; 84% would miss one day of work; and 74% would spend $75-$150 for additional family expenses. With telemedicine, 92% of patients saved $32 in fuel costs; 84% saved $100 in wages; and 74% saved $75-$150 in family expenses.

7. What are some of the barriers to accessing care and how can telemedicine help those in need of critical care?

Specific to LG Health, the cardiology and geriatrics pilot with seniors also uncovered that those receiving advanced supportive care services, and are therefore physically frail, require the use of an ambulance to transport them to routine medical visits. Transportation via ambulance can cost a patient hundreds of dollars, and place additional risk on their health. Telemedicine technology

11 Travel time to Occupational medicine offices average 30 minutes to 1 hour, from LG Health’s over 45 ambulatory and specialty locations throughout central Pennsylvania.
enables providers to bring care to the sickest of patients in the safety and comfort of their daily care arrangement.

In 2011, a team from the University of Massachusetts demonstrated that the implementation of a tele-ICU intervention was associated with reduced adjusted odds of mortality and reduced hospital length of stay, as well as with changes in best practice adherence and lower rates of preventable complications. In 2013, the same lead author from the previous JAMA article published a more recent review which examined the impact of Philips' eICU Program on nearly 120,000 critical care patients across 56 intensive care units, 32 hospitals and 19 health systems over a five-year period. The research demonstrated reductions in both mortality and length of stay. The results were statistically significant on both an unadjusted and severity-adjusted basis, according to researchers.

8. **How has the advancement of telemedicine in recent years benefited your health system?**

To meet consumer demands of convenience, access, and affordability, virtual health solutions such as telemedicine provide remote access to primary care and specialists in the examples described above for our Care Connections practice and our telemedicine program at Willow Valley Communities. Developing and implementing telemedicine technology has allowed Lancaster General Health to respond to the demands of our consumers and stay financially competitive.

9. **The administrative burden that Congress and federal government have placed on providers also takes time away from patients. It is something this Committee sought to partially address in Dr. Burgess’ SGR reform bill, H.R. 4015, but much more needs to be done. In the meantime, are there ways in which you could imagine telemedicine easing the administrative burden on providers thereby freeing up more time for the care of patients?**

Organizations investing in virtual visits need software development expertise, experience in direct-to-consumer marketing strategy, physicians and information technology staff available and interested in operating the program, and significant capital for developing and operating the service. However, many provider organizations lack these resources.

As we discussed above, new payment models would shift reimbursement from fee-for-service to value. With this shift, we anticipate more physicians looking for alternative methods to care for patients, like telemedicine, to reduce readmissions and improve chronic illness.


1. I would like to continue the discussion on care giving. As a nurse for over 20 years, it is a topic I am very familiar with. I would like to share some statistics:

- American caregivers are predominantly female (66%) and are an average of 48 years old.
- Most care for a relative (85%), most often a parent (36%).
- Family caregivers provide an average of 20 hours of care per week.
- One in seven caregivers provides care, over and above regular parenting, to a child with special needs (14%).
- Care giving lasts an average of 4.6 years.

Making it easier to get care to those who may have trouble traveling long distances to see a provider will improve outcomes and lives. Patients who have chronic conditions live longer and healthier lives when they have coordinated care and adhere to treatment programs. Today, children, often the daughter, are the caregivers for their parents. They are the vital component of coordinated care. Millions of women, who are caregivers, want to be there for their loved ones, but also need to be home to take care of their children or do their job.

With the billions of dollars invested in using broadband technologies national networks with high speeds and capacity, today’s state by state licensing of doctors is a barrier that should be removed. Established in the 1800s, it is an antiquated relic and it is time for it to be changed as it is proving to be an impediment to providing quality care for seniors. This is why I am a proud cosponsor or Reps. Nunes and Pallones’s H.R. 3077, the Tele-Med Act. This bill would allow Medicare doctors licensed in one state to see a Medicare beneficiary across state lines without a separate license.

Can we not use technology to ensure family members and caregivers are included in discussions with the provider and the patient they are caring for? Would it not improve communications if the caregiver can speak with the patient’s doctor directly, with the patient and for the patient, and be kept up-to-date with what the doctor is telling the patient, without having that caregiver fly across the country to attend a short appointment? What barriers are we facing to making this a reality?

At Lancaster General Health, we agree that telehealth will provide additional opportunities for patients’ caregivers to continue as active participants in the patient’s plan of care. We have over 80,000 patients now accessing their clinical record online. This access also includes the ability for a proxy, a patient’s caregiver, to access the record so they can review the plan of care contained within MyLGHealth, our patient portal. Future plans include expanding MyLGHealth capacities to enable caregivers to participate in video visits and consultations with physicians.
Potential barriers could include a patient’s desire for privacy and wishing to provide limited access to their clinical record. A limited access view online for a proxy would be a challenge for electronic health record vendors to create and health systems to maintain. In addition, patients have concerns about the records stored online and the video visits occurring over an “unsecured” internet connection. Similarly, adoption of the new technologies may be difficult for some patients and regions. Those with limited infrastructure to support telehealth services may not migrate quickly or easily to this new method of care communication. Even now, not all providers utilize electronic health records and similarly, electronic health records are not uniform. Thus, patients seeing multiple providers in varied networks may not have continuity across their record as information may be stored in disparate systems. This in turn would make the challenge for the proxy that much more difficult, as there may not be one central portal containing all of the patient’s health information for the proxy to review.

The Honorable Joe Barton

1. How secure are medical records when using this kind of technology?

In 2011, a systematic review of 58 articles pertaining to telemedicine security found that seventy-six percent of the articles defined the security problem they were addressing, and only 47% formulated a research question pertaining to security. Sixty-one percent proposed a solution, and 20% of these tested the security solutions that they proposed. Prior research indicates inadequate reporting of methodology in telemedicine research. There is a need for data confidentiality during both transmission and retention. Data integrity is also a key concern to ensure correct diagnosis and quality of care. There is a need to define standards for minimum requirements. Researchers need to address these security concerns in order to increase the dissemination of telemedicine services and to improve the quality of care provided. 17

Specifically for Lancaster General Health, our portal, MyLGHealth, is based on Epic’s MyChart platform and uses SSL (Secure Sockets Layer) to achieve data security over the internet. SSL is a standard that has been adopted by the Internet community for encrypting connections between two parties. It is widely available, supported by all major browsers and by almost all major web servers, including Microsoft’s Internet Information Server (IIS). In addition our platform uses firewall technology that limits the type of network traffic to and from our servers.

2. There are some concerns that if the doctor, the patient and the health insurance are in different places Medicare and Medicaid sometimes do not know how to or are unwilling to calculate the charges that result from a telemedicine visit. Would you please speak to that issue?

This question speaks to our continued support for payment programs which offer payment on a capitated basis. Providing telemedicine services are an important part of today’s delivery of care.

and reimbursement reform that does not support the advancements made to improve care delivery or needs and demands of the end user will not be sustainable in the long-term. The following was taken from a fact sheet provided by the Centers for Medicare and Medicaid Services (CMS).

Medicare beneficiaries are eligible for telehealth services only if they are presented from an originating site located in:

- A rural Health Professional Shortage Area, either located outside of a Metropolitan Statistical Area (MSA) or in a rural census tract, as determined by the Office of Rural Health Policy within the Health Resources and Services Administration (HRSA); or
- A county outside of a MSA

The originating sites authorized by law are:

- The offices of physicians or practitioners
- Hospitals
- Critical Access Hospitals (CAH)
- Rural Health Clinics
- Federally Qualified Health Centers
- Hospital-based or CAH-based Renal Dialysis Centers (including satellites)
- Skilled Nursing Facilities (SNF)
- Community Mental Health Centers (CMHC)

For more information, please refer to the document cited for the above information. Medicare also restricts to a list of “distant site practitioners” as well.

As with new payment models and based on our previous comments, we should be reducing the restrictions on originating and distant sites such that we do not just limit the value of telehealth visits to rural areas and a limited list of practitioners. Telehealth and telemedicine opportunities are demands of consumers and thus patients – reimbursement models that are simplified and supportive will need to be developed in order to reap the benefits and savings that these new technologies may offer us.

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